

chain nodes :

7 8 9 10 15 16 17 18 27

ring nodes :

1 2 3 4 5 6

chain bonds :

2-15 5-27 7-8 7-27 8-9 9-10 15-16 16-17 17-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

2-15 5-27 7-27

exact bonds :

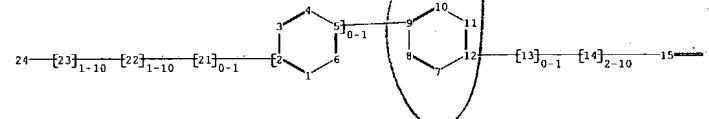
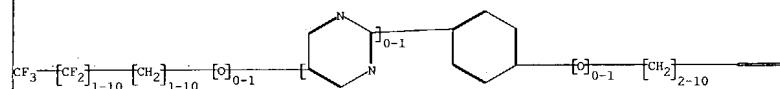
7-8 8-9 9-10 15-16 16-17 17-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
15:CLASS 16:CLASS 17:CLASS 18:CLASS 27:CLASS



chain nodes :

13 14 15 16 21 22 23 24

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12

chain bonds :

2-21 5-9 12-13 13-14 14-15 15-16 21-22 22-23 23-24

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact/norm bonds :

2-21 12-13

exact bonds :

5-9 13-14 14-15 15-16 21-22 22-23 23-24

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom  
12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS

AN 2002:716753 CAPLUS  
DN 137:255487  
ED Entered STN: 20 Sep 2002  
TI Alkyl silane liquid crystal compounds  
IN Wand, Michael; Gough, Neil; More, Kundalika; Thurmes, William N.; Chen, Xin-Hua  
PA USA  
SO U.S. Pat. Appl. Publ., 51 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C09K019-34

ICS C09K019-20; C07F007-02; C07F007-21

NCL 252299610

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 75

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002130299	A1	20020919	US 2001-754033	20010103
PRAI	US 2000-256063P	P	20001215		

OS MARPAT 137:255487

AB The present invention relates to compds. useful as components of LC and FLC compns. which in turn are useful in the manuf. of optical devices. Compds. of this invention have a silane tail, which can contain more than one Si. Compds. of this invention can include those with disilane tails. The invention provides LC compns. contg. one or more of the silanes of this invention. Addn. of one or more of the compds. of this invention to LC compns. can result in significant improvement in optical or LC properties. In particular, the compds. of this invention can significantly lower the m.p., f.p. or both of an LC compn. resulting in significant improvement in device stability.

ST liq crystal optical device display

IT Liquid crystal displays  
(alkyl silane liq. crystal compds. for)

IT Liquid crystals  
(ferroelec.; prepn. of alkyl silane liq. crystal compds. for liq crystal display)

IT Ferroelectric materials  
(liq.-crystal; prepn. of alkyl silane liq. crystal compds. for liq crystal display)

IT Liquid crystals  
(nematic; prepn. of alkyl silane liq. crystal compds. for liq crystal display)

IT Liquid crystals  
(smectic A; alkyl silane liq. crystal compds.)

IT Liquid crystals  
(smectic C; prepn. of alkyl silane liq. crystal compds. for liq crystal display)

IT 402860-34-8P 460359-01-7P 460359-02-8P 460359-03-9P 460359-04-0P  
460359-05-1P 460359-06-2P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(alkyl silane liq. crystal compds. for liq crystal display)

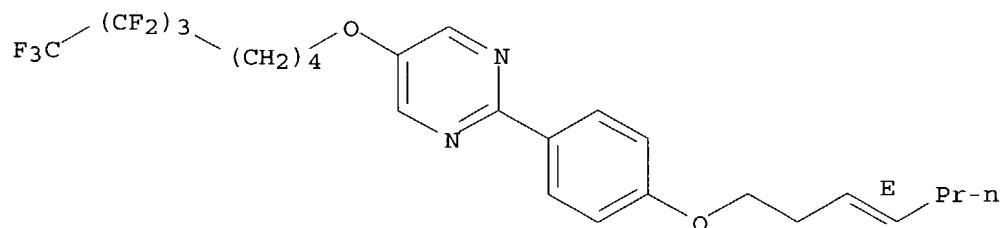
IT 57202-41-2 57202-54-7 57202-58-1 121083-93-0 121218-85-7  
121218-90-4 126163-69-7 155468-60-3 155468-61-4 308107-81-5  
460359-38-0 460359-40-4 460359-41-5 460359-42-6 460359-44-8  
460359-45-9 460359-46-0 460359-52-8 460359-53-9 460359-56-2

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(alkyl silane liq. crystal compds. for liq crystal display)

IT 460359-18-6P 460359-20-0P 460359-21-1P 460359-22-2P 460359-24-4P  
460359-26-6P 460359-28-8P 460359-31-3P 460359-32-4P 460359-33-5P

460359-34-6P 460359-35-7P 460359-36-8P 460359-37-9P 460359-96-0P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
     (alkyl silane liq. crystal compds. for liq crystal display)  
 IT 57202-48-9 120091-49-8 460359-39-1 **460359-43-7** 460359-47-1  
 460359-54-0 460359-55-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
     (alkyl silane liq. crystal compds. for liq crystal display)  
 IT 1066-35-9, Chlorodimethylsilane 1066-54-2, (Trimethylsilyl)acetylene  
 2344-80-1, Chloromethyltrimethylsilane 2695-48-9, 8-Bromo-1-octene  
 13170-43-9, (Trimethylsilyl)methylmagnesium chloride 17196-12-2  
 30102-73-9 58415-63-7, 4-(5-Octylpyrimidin-2-yl)-phenol 68535-55-7,  
 2-(4-Hydroxyphenyl)pyrimidine 110203-06-0, 4-(5-Decyloxy-pyrimidin-2-yl)-  
 phenol 124410-14-6 149396-77-0, 6-(4-Octyl-phenyl)-pyridin-3-ol  
 179817-73-3 460359-00-6 460359-19-7 460359-23-3 460359-25-5  
 460359-27-7 460359-29-9 460359-30-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (prepn. of alkyl silane liq. crystal compds. for liq crystal display)  
 IT 1189-75-9P 28681-61-0P 460359-07-3P 460359-08-4P 460359-09-5P  
 460359-10-8P 460359-11-9P 460359-12-0P 460359-13-1P 460359-14-2P  
 460359-15-3P 460359-16-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
     (prepn. of alkyl silane liq. crystal compds. for liq crystal display)  
 IT 460359-17-5P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
     (prepn. of alkyl silane liq. crystal compds. for liq crystal display)  
 IT **460359-43-7**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
     (alkyl silane liq. crystal compds. for liq crystal display)  
 RN 460359-43-7 CAPLUS  
 CN Pyrimidine, 2-[4-[(3E)-3-heptenyl]oxy]phenyl]-5-[(5,5,6,6,7,7,8,8,8-  
     nonafluorooctyl)oxy]-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



AN 2002:978521 CAPLUS  
 DN 138:64125  
 ED Entered STN: 29 Dec 2002  
 TI Liquid crystalline materials containing perfluoroalkyl and alkenyl tail groups  
 IN Gough, Neil; Vohra, Rohini; Wand, Michael; More, Kundalika; Thurmehs, William N.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 46 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM C09K019-34  
 ICS C09K019-32; C09K019-30; C09K019-20; C09K019-12; C07D239-02  
 NCL 252299610; 544298000; 252299630; 252299620; 252299640; 252299660;  
 252299670; 544334000  
 CC 75-11 (Crystallography and Liquid Crystals)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002195585	A1	20021226	US 2001-754034	20010103
PRAI	US 2000-255984P	P	20001215		

OS MARPAT 138:64125

AB This invention describes compds. that are useful as components in liq. crystal compns., particularly in ferroelec. liq. crystal compns. Compds. of the invention are rod-like mols. with a mesogenic (generally linear) core to which an alkene tail and an alkyl or alkoxy tail with a perfluoroalkyl terminal portion are bonded. Compds. of the invention can contain a variety of 1, 2 or 3 ring cores, wherein the rings maybe arom. or alicyclic. Alkenes of the invention are useful as components to improve LC properties of mixts., for example, to lower m.p. or to lower f.p., of LC compns.

ST ferroelec liq crystal perfluoroalkyl alkenyl tail group

IT Liquid crystals  
 (ferroelec.; liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

IT Ferroelectric materials  
 (liq.-crystal; liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

IT Liquid crystals  
 (nematic; liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

IT Liquid crystals  
 (smectic; liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

IT **479201-26-8P**  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

IT 57202-38-7 57202-39-8 57202-48-9 57202-54-7 57202-58-1  
 120091-49-8 121083-93-0 121218-85-7 121218-90-4 121235-87-8  
 126162-76-3 126163-69-7 155468-60-3 308107-81-5 402860-34-8  
 439866-35-0 460359-38-0 460359-39-1 460359-40-4 460359-42-6  
**460359-43-7** 460359-44-8 460359-45-9 460359-51-7  
 479201-27-9 479201-28-0 479201-29-1 479201-30-4 479201-31-5  
 479201-32-6 479201-33-7 479201-34-8 479201-35-9 479201-36-0  
 479201-37-1 479201-38-2

IT RL: TEM (Technical or engineered material use); USES (Uses)  
 (liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)  
 2108-05-6, trans-3-Hepten-1-ol 2695-48-9, 8-Bromo-1-octene 20125-84-2  
 56578-18-8, trans-5-Decen-1-ol 64275-73-6 460359-29-9

IT RL: RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis of liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

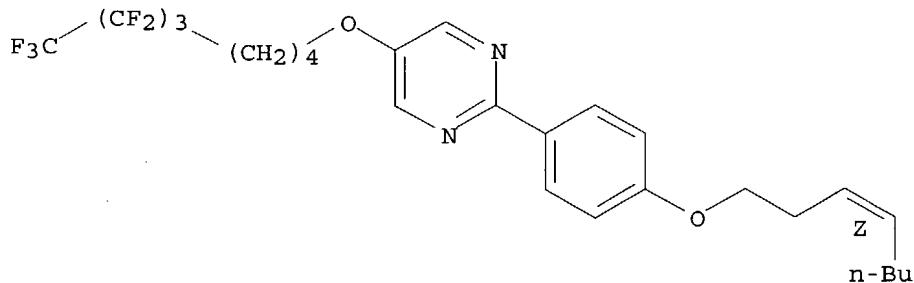
IT 479201-23-5P 479201-24-6P 479201-25-7P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (synthesis of liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

IT 479201-26-8P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

RN 479201-26-8 CAPLUS

CN Pyrimidine, 5-[(5,5,6,6,7,7,8,8,8-nonafluoroctyl)oxy]-2-[4-[(3Z)-3-octenyl]phenyl] - (9CI) (CA INDEX NAME)

Double bond geometry as shown.

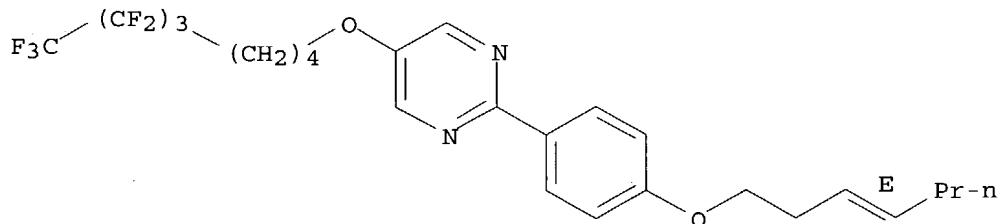


IT 460359-43-7  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

RN 460359-43-7 CAPLUS

CN Pyrimidine, 2-[4-[(3E)-3-heptenyl]oxy]phenyl]-5-[(5,5,6,6,7,7,8,8,8-nonafluoroctyl)oxy] - (9CI) (CA INDEX NAME)

Double bond geometry as shown.

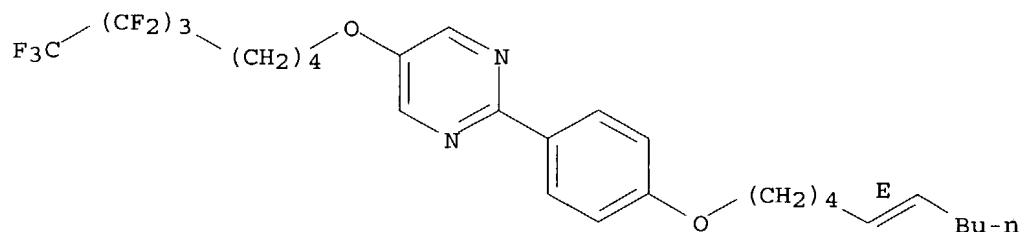


IT 479201-23-5P 479201-24-6P 479201-25-7P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (synthesis of liq. cryst. materials contg. perfluoroalkyl and alkenyl tail groups)

RN 479201-23-5 CAPLUS

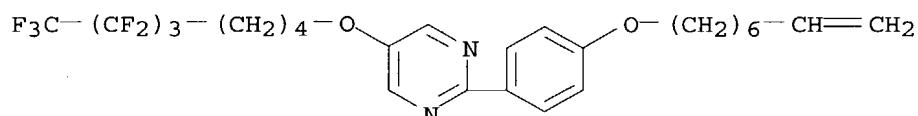
CN Pyrimidine, 2-[4-[(5E)-5-decenyloxy]phenyl]-5-[(5,5,6,6,7,7,8,8,8-nonafluoroctyl)oxy] - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 479201-24-6 CAPLUS

CN Pyrimidine, 5-[(5,5,6,6,7,7,8,8,8,8-nonafluorooctyl)oxy]-2-[4-[(7-octenoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 479201-25-7 CAPLUS

CN Pyrimidine, 5-[(5,5,6,6,7,7,8,8,8,8-nonafluorooctyl)oxy]-2-[4-[(5Z)-5-octenoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

